

were calculated for each treatment strategy and severity level. Four types of items were surveyed: treatment strategy for VCF (A.hospitalization only, B.hospitalization to outpatient, C.outpatient visit only, D.operation, E.follow-up only, F.other), treatment period of each VCF therapy (length of stay and outpatient visit), examination items (diagnostic imaging, laboratory test) and therapeutic regimens (use of cast or hard/soft corset, rehabilitation, nerve block, medication). Severity of VCF was classified into three levels: status1(lumbar back pain;+/ADL impairment;/neurological symptoms;-), status2(+/-), status3(+++). **RESULTS:** The questionnaire was addressed to 83 institutions, and responses from 68 (response rate 82%) were received. Of these, 65 responses were available for estimation. When considering the proportions of treatment strategies (A to C), the expected medical costs for each status were: status1; US\$1637, status2; US\$4485 and status3; US\$7962 (1US\$ = 92JPY). The expected medical cost of CMM for a patient with osteoporotic VCF in Japan was estimated at US\$4,032, and the total annual costs of CMM for VCF on a national scale were estimated to be US\$1.18 billion. **CONCLUSIONS:** Japan being an aging society, the burden of illness for VCF is a significant issue. Further standardization and customization of treatment modalities are expected for optimal allocation of medical resources.

**PMS34**

**AN EXPLORATORY EVALUATION OF THE COST-EFFECTIVENESS OF RITUXIMAB AND ABATACEPT IN THE TREATMENT OF MODERATE TO SEVERE RHEUMATOID ARTHRITIS AFTER AN INADEQUATE RESPONSE TO A TUMOUR NECROSIS FACTOR INHIBITOR IN CANADA**

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**OBJECTIVES:** Rituximab (RTX) and abatacept (ABAT) are novel therapies to treat moderate to severe Rheumatoid Arthritis (RA). This analysis was conducted to evaluate the cost-effectiveness of these two therapies in patients with active RA who have had an inadequate response to anti-tumour necrosis factor (TNF) inhibitor therapies from the Ontario Ministry of Health perspective. **METHODS:** A cost-utility model was used to evaluate the direct costs and outcomes of a standard Canadian treatment sequence in the absence and presence of either RTX + methotrexate (MTX) or ABAT + MTX after failure of one anti-TNF. The model simulated 10,000 RA patients over a life time. RTX and ABAT were evaluated against the following standard Canadian treatment sequence after failure of one anti-TNF (etanercept): adalimumab + MTX, infliximab + MTX, leflunomide, gold, cyclosporine and palliative care. Baseline characteristics from REFLEX (Randomized Evaluation of Long-term Efficacy of Rituximab in RA) clinical trial were: mean age, 52.2 years; mean HAQ score, 1.88. ACR response rates from RCTs were placebo-adjusted to minimize bias from cross-trial comparisons. All relevant direct costs were included in the model including drug costs, administration and monitoring, and adverse events. Observational data were used to estimate long-term HAQ progression and average time on treatment for patients responding to therapy. Costs and benefits were discounted at 5% per annum. **RESULTS:** The introduction of RTX following failure of one biologic resulted in a gain of 0.443 QALYs at an additional total cost of \$3710 resulting in an ICER of \$8380/QALY. The introduction of ABAT following failure of one biologic resulted in a gain of 0.387 QALYs at an additional total cost of \$18,588 resulting in an ICER of \$48,000/QALY. **CONCLUSIONS:** Rituximab is economically attractive from a Canadian payer perspective and is a cost effective treatment option over abatacept when compared in the studied population.

**MUSCULAR-SKELETAL DISORDERS – Patient-Reported Outcomes Studies**

**PMS36**

**IMPACT OF A SUPPORT PROGRAM ON THE TREATMENT COMPLIANCE IN OSTEOPOROSIS PATIENTS**

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**OBJECTIVES:** To assess the extension in which the participation of a patient in a support program contributes with increased osteoporosis treatment compliance. Trials demonstrated that the compliance rates to oral bisphosphonates therapy present a significant drop along the first year of treatment and continue declining year after year. The objective of a support program is to provide patient's support providing information about the disease, to interchange experiences with other patients, provide high calcium content nutrition tips and proper physical activities. **METHODS:** Quantitative study conducted through personal and individual interviews using a structured questionnaire. Two hundred and twenty interviews were conducted with female patients that concluded the bisphosphonate treatment, divided in two groups: one hundred-two registered and one hundred and eighteen non-registered into a support program. **RESULTS:** The average treatment period with bisphosphonate between the patients registered in the program is of 11 months vs. 4 months for non-registered patients. The main causes of impact on the continuous use of bisphosphonate of the patients non-registered in a support program include the treatment side effects (28% vs. 11%;  $p < 0.002$ ). From the total of patients interrupting the intake of bisphosphonate due to side effects the largest number are due to gastric problems. However, the patients registered in a support program reach the treatment final (34% vs. 15%;  $p < 0.01$ ). **CONCLUSIONS:** The patients registered in a support program present the tendency to follow the prescription and remain for a longer time period in the therapy.

It is perceived that when the patients has access to wider information about the disease, which is one of the main objectives of a treatment support program, the therapy discontinuation rate due to side effects is lower. Because the patients are aware about the occurrence of gastric issues, they properly follow the guidelines, avoiding them and reaching the treatment final.

**PMS37**

**QUALITY OF LIFE AND COMPLIANCE IN GIRLS WITH ADOLESCENT IDIOPATHIC SCOLIOSIS**

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**OBJECTIVES:** The Brace Questionnaire (BrQ) is a recently-developed, condition-specific tool used to measure quality of life (QoL) in subjects treated with spinal bracing. While corrective bracing for adolescent idiopathic scoliosis (AIS) has more favourable outcomes when patients are compliant, one must appreciate that bracing itself may be a stressful and traumatic experience, and compliance with a bracing protocol is likely to be dependent upon patients' physical, emotional and social well-being. Using the BrQ we sought to explore relationships between QoL and compliance with treatment. **METHODS:** The BrQ was administered to 31 AIS patients after a minimum of 1 year of wearing a brace for 1 year. Subjects were 13–16 year-old girls with significant deformity (Cobb angles 25–40 degrees). Participants were divided into two groups according to their level of compliance with the bracing protocol. BrQ sub- and total scores were compared between the two groups using the t-test for comparison of means. **RESULTS:** Twenty participants were classified as compliant and 11 as non-compliant. Mean total BrQ scores (expressed as %) were 83.7 for the compliant group and 64.4 for the non-compliant group ( $p < 0.001$ ). The compliant group scored significantly higher in six of the eight domains that make up the BrQ. Compliant patients had greater vitality and self esteem, and functioned better in those domains covering physical, emotional and social performance. **CONCLUSIONS:** Poor QoL adversely affects compliance in AIS patients requiring a brace. Non-compliant patients lack vitality and self esteem, and function poorly in the physical, emotional and social domains. Quality of life for adolescents with idiopathic scoliosis may relate more to psychosocial coping mechanisms than to physical deformity and its consequences. It is important for remedial programmes to consider personal, peer and family issues as part of improving QoL, promoting compliance and correcting deformity.

**PMS38**

**PATIENTS SUCCESS CRITERIA AND EXPECTATIONS IN FALLS REHABILITATION**

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**OBJECTIVES:** Performance-based instruments commonly used in clinical settings often do not capture important aspects of the patient's health experience. Therefore, the primary aim of this study was to use a patient-reported outcomes (PRO) questionnaire to investigate patient's success criteria and expectations when receiving rehabilitation services related to falls. **METHODS:** A group of patients (N = 50, age = 55+) receiving physical therapy services were enrolled. Inclusion criteria consisted of: community dwellers with a history of falling, ability to walk 20 ft, and Mini-Mental State Exam score >24. The Patient's Perspective Outcome Questionnaire (PPOQ) was administered at the initial physical therapy evaluation. PPOQ assesses current levels, success criteria and expected levels for a number of health domains including: mobility, self-care, interactions with people, community/social life, energy/drive, mental function, emotional distress, sensory function, and pain. A 100-point scale is used to assess levels of interference across domains (0 = not affected and 100 = most affected). **RESULTS:** Participants reported highest scores in the energy/drive (53), mobility (47), and pain (44) domains. Interactions with people (21) and community/social life (31) received the lowest scores, suggesting that domains with a strong social component were not as affected as domains with a strong physical component. Participants required significant improvement to consider their treatment successful. The mobility and energy/drive domains required significantly larger reductions than the community/social life, and interactions with people domains ( $P < 0.006$ ). Across all domains, participant's expectation was that the treatment would not meet their success criteria, indicating that residual levels of impairment were expected after treatment. **CONCLUSIONS:** The results of this study point out that a number of health domains are significantly affected in this population. These patients have treatment expectations that exceed the mobility problems for which they were treated. In exploring meaningful change, the patient's expectations and success criteria must be considered.

**PMS39**

**IMPAIRMENTS IN QUALITY OF LIFE, DAILY FUNCTION, AND WORK PRODUCTIVITY AND ACTIVITY IN RHEUMATOID ARTHRITIS PATIENTS WHO USE SUBCUTANEOUS BIOLOGIC THERAPIES**

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**OBJECTIVES:** To assess symptoms, functionality, quality of life (QoL), and work/productivity loss in Rheumatoid Arthritis (RA) patients treated with subcutaneous (SC) biologics. **METHODS:** Patient-reported data from the 2007 Rheumatoid Arthritis Patient Study were analyzed. Symptoms were measured by morning stiffness, fatigue, and pain scores defined on a scale from 0 (no symptom) to 10 (severe